



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,786	03/05/2002	Hidekiyo Takaoka	M1071.1712	1545
7590 09/08/2004			EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY, LLP			IP, SIKYIN	
1177 Avenue of the Americas			ART UNIT	
New York, NY 10036			PAPER NUMBER	
			1742	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,786

Applicant(s)

TAKAOKA ET AL.

Examiner

Sikyin Ip

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/6/04;6/17/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/23/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 is indefinite because the expression "said transition metal" in lines 1-2 has no antecedent basis.

Claim Rejections - 35 USC § 103

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 9 are rejected under 35 U.S.C. § 103 as being unpatentable over CN 1205260.

CN 1205260 disclose(s) the features including the claimed Sn based solder alloy composition. The features relied upon described above can be found in the reference(s) at: abstract. The difference between the reference(s) and the claim 9 is as follows: CN 1205260 does not disclose the soldering temperature. But, soldering temperature is a material composition property; consequently, the properties as recited in the instant claims would have inherently possessed by the teachings of the cited references. Therefore, the burden is on the applicant to prove that the product of the prior art does not necessarily or inherently possess characteristics attributed to the claimed product. It is well settled that a newly discovered property does not necessarily mean the product is unobvious, since the property is inherently possessed in the prior art. In re Best, 195 USPQ, 430 and MPEP § 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art

are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)."

Claims 1-4 and 7-9 are rejected under 35 U.S.C. § 103 as being unpatentable over USP 5512242 to Tanaka et al.

Tanaka '242 disclose(s) the features including the claimed Sn based alloy compositions (abstract) and forming a bonded Sn based bearing layer to a backing plate (col. 6, lines 47-52) which reads on the claimed soldering function. Thus, an obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties. In re Gyurik, 596 F.2d 1012, 1018, 201 USPQ 552, 557 (CCPA 1979); See In re May, 574 F.2d 1082, 1094, 197 USPQ 601, 611 (CCPA 1978); In re Hoch, 57 CCPA 1292, 1296, 428 F.2d 1341, 1344, 166 USPQ 406, 409 (1970); and In re Wood, 582 F.2d 638, 641, 199 USPQ 137, 139 (CCPA 1978). Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the subject matter disclosed by the reference. Overlapping ranges have been held to be a prima facie case of obviousness. See In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

Claims 5-6 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5512242 to Tanaka et al (Tanaka '242) as applied to claims 1-4 above, and further in view of USP 5543236 to Tanaka et al (Tanaka '236).

The claimed subject matter as is disclosed and rejected above by the Tanaka '242 reference except for soldering the Sn based bearing material to a transition metal conductor backing plate. However, Tanaka '236 in the abstract teaches forming a Cu (transition metal conductor) plated backing plate to enhance corrosion resistance of a backing plate in the same field of endeavor or the analogous metallurgical art.

Therefore, it would have been obvious to one having ordinary skill in the art of the cited references at the time the invention was made to plate a backing plate with Cu alloy as taught by Tanaka '236 before soldering Sn based bearing alloy on backing plate in order to make a multi-layered slide bearing with better corrosion resistance. In re Venner, 120 USPQ 193 (CCPA 1958), In re LaVerne, et al., 108 USPQ 335, and In re Aller, et al., 105 USPQ 233.

Response to Arguments

Applicant's arguments filed June 17, 2004 and May 6, 2004 have been fully considered but they are not persuasive.

Applicants' argument in page 1 of "Introductory Comments", filed June 17, 2004, is noted. But, first, none of the instant rejected claims recited soldering temperature except claim 9. Second, any temperature above the melting temperature of a material could be used as a soldering temperature. It is known in the art of cited references that melting temperature is a material property. Because applicants apply the solder material at lower temperature range that does not change the melting temperature of the material which would have been inherently possessed by the material of cited references. Brazing material forming temperature could be much higher than soldering

temperature for better fluidity molding property. Third, applicants failed to show that the claimed solder composition is critical for claimed soldering temperature range that material of cited references would not inherently possess the same soldering temperature range (See *In re Best*, 195 USPQ, 430 and MPEP § 2112.01). The JP 01-130898 does not show the material of cited references would not inherently possess the claimed soldering temperature range.

Applicants argue that the low-melting point braze material of CN 1205260 contains Cu. But, it is well settled that the recitation of "consisting essentially of" limits the scope of a claim to the specified ingredients and those that do not materially affect the basic and novel characteristics of a composition. *Ex parte Davis*, et al., 80 USPQ 448, 450 (PTO Bd. App. 1948), *In re Janakirama-Rao*, 317 F. 2d 951, 137 USPQ 893, 894 (CCPA 1963), *In re Garner*, 412 F 2d 276, 162 USPQ 221, 223 (CCPA 1969), and *In re Herz*, et al., 190 USPQ 461, 463 (CCPA 1976). When applicant contends that modifying components in the reference composition are excluded by the recitation of "consisting essentially of" applicant has the burden of showing the basic and novel characteristic of his/her composition - i.e. a showing that the introduction of these components would materially change the characteristics of applicant's composition. *In re De Lajarte*, 337 F 2d 870, 143 USPQ 256 (CCPA 1964) and *Ex parte Davis*, et al., 80 USPQ 448, 450 (PTO Bd. App. 1948).

Applicants' argument in paragraph bridging pages 6-7 of remarks filed on May 6, 2004 with respect to CN '260 is noted. But, none of the instant claims recites "soft

solder". Moreover, the name "hard or soft" solder does not change the material properties.

Applicants' argument in first full paragraph of page 7 of remarks filed on May 6, 2004 is misplaced. Because said rejection is a single reference rejection.

Applicants argue that the alloy of Tanaka '242 contains Ni. But, applicants fail to provide factual evidence to substantiate that Ni would materially change the characteristics of applicant's composition. In re De Lajarte, 337 F 2d 870, 143 USPQ 256 (CCPA 1964) and Ex parte Davis, et al., 80 USPQ 448, 450 (PTO Bd. App. 1948).

Applicants' argument in paragraph bridging pages 7-8 of the instant remarks is noted. But, the claimed soldering temperature is a material property which is inherently possessed by the material of cited reference. Furthermore, Tanaka '242 in col. 6, lines 47-56 teaches Sn based bearing material is heated, melted, and soldered to the backing plates by centrifugal casting. The molten Sn based bearing material is functioned/acted as a solder to solder to a backing plate and formed a bearing.

Conclusion

This is a RCE application. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121.

Examiner Correspondence


Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (571) 272-1241. The examiner can normally be reached on Monday to Friday from 5:30 A.M. to 2:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King, can be reached on (571)-272-1244.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Ip
September 5, 2004


SIKYIN IP
PRIMARY EXAMINER